Claims

1. An image input/output device in which an image information detection section for receiving reflected light from an image information object to detect the image information of the object, and a self-luminous image display section for displaying an image based on the image information detected by the image information detection section are attached together in a back-to-back arrangement,

wherein the self-luminous image display section functions as an image-information-detecting light source for irradiating an image information object with light through the image information detection section.

2. The image input/output device of claim 1, wherein the image display section, which functions as the image-information-detecting light source, emits light both toward an image display side and toward an image information detection side.

3. The image input/output device of claim 1, wherein:

the image display section, which functions as the image-information-detecting light source, emits light only toward an image display side; and

the image input/output device further comprises light reflecting means for reflecting light emitted toward the image display side from the image display section, which functions as the image-information-detecting light source, toward an image information detection side.

4. The image input/output device of claim 3, wherein the light reflecting means is a mirror provided on one side, closer to the image display section, of a cover member that can be opened and closed so that the cover member can cover a display surface of the image display section.

5. The image input/output device of claim 1, wherein:

the image information detection section includes a detection section substrate and a plurality of photodetector elements provided on the detection section substrate; and

the detection section substrate is placed so that one surface thereof on which the plurality of photodetector elements are provided is facing inwardly.

6. The image input/output device of claim 5, wherein:

the image display section includes a display section substrate; and

a transparent filler layer is provided between the detection section substrate and the display section substrate.

7. The image input/output device of claim 1, wherein:

the image display section includes a display section substrate and a plurality of display elements provided on the display section substrate; and

the display section substrate is placed so that one surface thereof on which the plurality of display elements are provided is facing inwardly.

8. The image input/output device of claim 7, wherein:

the image information detection section includes a detection section substrate; and

a transparent filler layer is provided between the detection section substrate and the display section substrate.

9. The image input/output device of claim 1, wherein:

the image information detection section includes a detection section substrate and a plurality of photodetector elements provided on the detection section substrate, and the image display section includes a display section substrate and a plurality of display elements provided on the display section substrate; and

the detection section substrate is placed so that one surface thereof on which the plurality of photodetector elements are provided is facing inwardly, and the display section substrate is placed so that one surface thereof on which the plurality of display elements are provided is facing inwardly.

10. The image input/output device of claim 9, wherein a transparent filler layer

is provided between the detection section substrate and the display section substrate.

11. The image input/output device of claim 1, wherein when detecting image information, portions of the image display section, which functions as the image-information-detecting light source, emit light successively, and a portion of the image information detection section, which corresponds to a portion of the image display section that has emitted light, detects and stores image information.

12. The image input/output device of claim 11, wherein an image information reading operation is initiated for those portions of the image information detection section that have already detected and stored image information, before light emission from all portions of the image display section is completed.

13. The image input/output device of claim 11, wherein the image display section successively emits light in a line sequential manner.

14. The image input/output device of claim 13, wherein an image information reading operation is initiated for those portions of the image information detection section that have already detected and stored image information, before light emission from all portions of the image display section in a line sequential manner is completed.

15. The image input/output device of claim 14, wherein image information is read from the image information detection section in a sequential line-addressing corresponding to that of the image display section.

16. The image input/output device of claim 1, wherein a display mode of the self-luminous image display section is an organic electroluminescence display mode or an inorganic electroluminescence display mode.

17. An image information reading method for reading image information from image information detection means for detecting and storing image information of an image information object by receiving light that has been reflected from the image information object, wherein:

a plurality of portions of the image information object are successively irradiated with light, and image information of a portion of the image information object that is irradiated with light is detected and stored by the image information detection means; and

an operation of reading image information from the image information detection means is initiated for portions of image information object where image information has already been detected and stored by the image information detection means, before light irradiation of all portions of the image information object is completed.

18. The image information reading method of claim 17, wherein light irradiation of the image information object is performed in a line sequential manner.

19. The image information reading method of claim 18, wherein an operation of reading image information from the image information detection means is performed in a sequential line-addressing corresponding to that of the light irradiation of the image information object.